

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Peter Gernold Art Unit : 2166
Serial No. : 10/784,196 Examiner : Leon J. Harper
Filed : February 24, 2004 Conf. No. : 9245
Title : GENERATING DATA SUBSCRIPTIONS BASED ON APPLICATION DATA

Mail Stop Appeal Brief - Patents

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

BRIEF ON APPEAL

(1) Real Party in Interest

SAP Aktiengesellschaft (SAP AG), the assignee of this application, is the real party in interest.

(2) Related Appeals and Interferences

There are no related appeals or interferences.

(3) Status of Claims

Claims 1-3, 5-7, 10-13, 15-17, 19, and 20 are pending in this application, with claims 1, 7, and 15 being independent. Claims 1-3, 5-7, 10-13, 15-17, 19, and 20 have been rejected and have been appealed. Claims 4, 8, 9, 14, and 18 have been cancelled.

(4) Status of Amendments

The claims have not been amended subsequent to the final rejection.

(5) Summary of Claimed Subject Matter

Independent claim 1 recites a computer-readable medium having embodied thereon a computer program configured to generate data subscriptions. Application at page 4, lines 17-18 and page 5, lines 24-28. The medium includes one or more code segments configured to receive user input identifying a publication to be used to create data subscriptions, application at page 8, lines 11-22 and FIG. 2A item 220, and receive user input identifying a distribution criterion by which data is to be distributed to data sites by subscriptions automatically generated without

human intervention, application at page 8, line 30 through page 11, line 27 and Fig. 2A item 230. The publication is one of multiple predetermined publications identifying a type of data capable of being distributed to data sites, application at page 8, lines 13-16, and the one or more code segments are configured to store, in computer-readable medium for later access, subscription-generation information including the identified publication and the identified distribution criterion, application at page 12, lines 1-8 and Fig. 2A item 240.

The one or more code segments also are configured to access, using a first computer system, the subscription-generation information identifying the publication and the distribution criterion, application at page 12, lines 20-26, page 13, lines 4-10, and FIG. 2B item 250, and access, using the first computer system and the accessed subscription-generation information, application data of various data types, including the type of data identified by the subscription-generation information, application at page 12, line 27 through page 13, line 3 and page 13, lines 11-19. The one or more code segments further are configured to generate, using the first computer system, data subscriptions for the publication to be distributed to data sites corresponding to computer systems that are distinct from the first computer system, the computer systems and the first computer system being connected in a network of distributed computer systems operating an application program having the application data of the various data types, wherein each data subscription 1) is generated automatically by the first computer system based only on the type of data to be distributed to data sites, the accessed application data, and the distribution criterion and 2) identifies a portion of the application data to be distributed to one or more of the data sites of the second computer system. Application at page 12, line 27 through page 13, line 24 and FIG. 2B item 260.

The one or more code segments are configured to generate assignments of data sites to the generated data subscriptions, the assignments being generated based on application data, using the first computer system, and automatically without human intervention, and store, in computer-readable medium for later access, the generated assignments. Application at page 14, lines 3-16 and Fig. 2B item 290. The one or more code segments also are configured to distribute a portion of the application data to the data sites corresponding to computer systems, the distribution being based on the data subscriptions generated by the first computer system and

the generated assignments. Application at page 6, line 22 through page 7, line 6 and page 13, lines 25-27.

Independent claim 7 recites a system for generating data subscriptions. Application at page 4, lines 17-18 and page 5, lines 12-28. The system includes a central system having a central database storing application data of various data types for an application program, storing data subscriptions to receive portions of the application data and configured to assignments of data subscriptions to distributed systems such that each assignment identifies a particular data subscription and a particular distributed system that is to receive a portion of the type of application data that corresponds to the distribution criteria for the type of application data included in the data subscription. Application at page 5, lines 12-28, page 6, lines 7-10, page 6, line 22 through page 7, line 6, page 13, lines 4-24, and FIG. 1 item 110. The system also includes distributed systems having local databases of which at least some local databases include different portions of the application data from the central database. Application at page 5, lines 12-28, page 6, lines 11-21, and FIG. 1 items 115 and 120.

The data subscriptions for types of application program data are automatically generated by the central system based only on (1) the type of data to be distributed, the application data stored at the central system, and a distribution criteria for a type of application data, and (2) identifies a portion of the application data to be distributed to the local databases of the distributed systems. Application at page 12, line 27 through page 13, line 24 and FIG. 2B item 260. The assignments of data subscriptions are automatically generated based on the application data and the distribution criterion, application at page 14, lines 3-16 and Fig. 2B item 290, and portions of the application data from the central database are distributed to the distributed systems based on the generated data subscriptions and assignments generated by the central system, application at page 6, line 22 through page 7, line 6 and page 13, lines 25-27.

Independent claim 15 recites a method for generating data subscriptions. Application at page 4, lines 17-18, page 8, lines 1-2, and page 12, lines 11-12. The method includes receiving user input identifying a publication to be used to create data subscriptions, application at page 8, lines 11-22 and FIG. 2A item 220, and receiving user input identifying a distribution criterion by which data is to be distributed to data sites by subscriptions automatically generated without human intervention, application at page 8, line 30 through page 11, line 27 and Fig. 2A item 230.

The publication is one of multiple predetermined publications identifying a type of data capable of being distributed to data sites, application at page 8, lines 13-16, and the method includes storing, in computer-readable medium for later access, subscription-generation information including the identified publication and the identified distribution criterion, application at page 12, lines 1-8 and Fig. 2A item 240.

The method also includes accessing, using a first computer system, the subscription-generation information identifying the publication and distribution criterion, application at page 12, lines 20-26, page 13, lines 4-10, and FIG. 2B item 250, and accessing, using the first computer system and the accessed subscription-generation information, application data of various data types, including the type of data identified by the subscription-generation information, application at page 12, line 27 through page 13, line 3 and page 13, lines 11-19. The method further includes generating, using the first computer, data subscriptions for the publication to be distributed to data sites corresponding to computer systems that are distinct from the first computer system, the computer systems and the first computer system being connected in a network of distributed computer systems operating an application program having the application data of the various data types, wherein each data subscription 1) is generated automatically by the first computer system based only on the type of data to be distributed to data sites, the application data accessed at the first computer system, and the distribution criterion and 2) identifies a portion of the application data to be distributed to the data sites of the second computer system. Application at page 12, line 27 through page 13, line 24 and FIG. 2B item 260.

The method includes generating assignments of data sites to the generated data subscriptions, the assignments being generated based on application data, using the first computer system, and automatically without human intervention, and storing, in computer-readable medium for later access, the generated assignments. Application at page 14, lines 3-16 and Fig. 2B item 290. The method also includes distributing a portion of the application data to the data sites corresponding to computer system, the distribution being based on the data subscriptions generated by the first computer system and the generated assignments. Application at page 6, line 22 through page 7, line 6 and page 13, lines 25-27.

(6) Grounds of Rejection to be Reviewed on Appeal

a. Claims 1-3, 5-7, 10-13, 15-17, 19, and 20 under 35 U.S.C. § 103

Claims 1-3, 5-7, 10-13, 15-17, 19, and 20 have been rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,870,605 (Bracho) in view of U.S. Patent No. 5,884,324 (Cheng).

b. Claims 1, 7, and 15 under Double Patenting

Claims 1, 7, and 15 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 10, and 19 of copending Application No. 10/784,848.

(7) Argument

a. Claims 1-3, 5-7, 10-13, 15-17, 19, and 20 are not properly rejected under 35 U.S.C. § 103 as being unpatentable over Bracho in view of Cheng.

Appellant requests reversal of this rejection because each of Bracho, Cheng, and the proposed combination fail to describe or suggest the subject matter of independent claims 1, 7, and 15, as described more fully below. For example, each of Bracho, Cheng, and the proposed combination fail to describe or suggest (1) generating, using a first computer system, data subscriptions for a publication to be distributed to data sites corresponding to computer systems that are distinct from the first computer system, where each data subscription is generated automatically by the first computer system based only on a type of data to be distributed to data sites identified by the publication, accessed application data, and distribution criterion received as user input, and (2) generating, based on application data and using the first computer system, assignments of data sites to the generated data subscriptions automatically without human intervention, as recited in independent claim 1.

Specifically, although Bracho describes a system that enables a subscriber to choose to subscribe to an event published by a publisher, the Bracho system does not automatically generate, using a first computer system, data subscriptions for a publication to be distributed to data sites corresponding to computer systems that are distinct from the first computer system based only on a type of data to be distributed to data sites identified by the publication, accessed application data, and distribution criterion received as user input. Rather, the Bracho system

enables subscribers to “subscribe (or tune in to)” a specific event type based on the subscriber's interest in the specific event type. See Bracho at col. 5, lines 9-30 and col. 6, lines 1-12.

Therefore, in the Bracho system, data subscriptions are not automatically generated, using a first computer system, based only on a type of data to be distributed to data sites identified by the publication, accessed application data, and distribution criterion received as user input.

Moreover, the Bracho system does not generate, based on application data and using the first computer system, assignments of data sites to the generated data subscriptions automatically without human intervention. Instead, in the Bracho system, a subscriber reviews published events available through the Bracho system and decides which of the published events the subscriber wishes to receive. See Bracho at col. 5, lines 9-30 and col. 6, lines 1-12. In this regard, generated subscriptions are not assigned to data sites automatically without human intervention.

More specifically, Bracho describes techniques for making information available via a networked system of publishers and subscribers. See Bracho at col. 1, lines 19-21. “Publishers” publish information, and “subscribers” request and use the information. See Bracho at col. 1, lines 63-65. In particular, each subscriber receives information (or an event) published by the publisher if, and only if, the events match subscription criteria specified by the subscriber. See Bracho at Abstract; col. 2, lines 19-21. To receive information, the subscribers register a subscription for an event type. See Bracho at col. 8, lines 44-46. Subscribers then specify the information that they want to receive by an event type and the content of the event. See Bracho at col. 5, lines 24-25.

As such, Bracho describes a system in which information is published to subscribers based on the event and the content of the event as specified by the subscriber. Bracho relies on the subscribers to register a subscription for an event type and indicate the content and types of events that the subscriber wishes to receive. In contrast to Bracho's approach, claim 1 recites (among other features):

generating, using the first computer system, data subscriptions for the publication to be distributed to data sites corresponding to computer systems that are distinct from the first computer system, the computer systems and the first computer system being connected in a network of distributed computer systems operating an application program having the application data of the various data types, wherein each data subscription 1) is generated automatically by the first computer system based only on the type of data to be distributed to data sites, the accessed application data, and

the distribution criterion and 2) identifies a portion of the application data to be distributed to one or more of the data sites of the second computer system, and

generating assignments of data sites to the generated data subscriptions, the assignments being generated based on application data, using the first computer system, and automatically without human intervention.

The final Office Action of April 8, 2008 indicates that generating assignments of data sites to the generated data subscriptions, the assignments being generated based on application data, using the first computer system, and automatically without human intervention is disclosed by Bracho at column 6, lines 1-10. See final Office Action of April 8, 2008 at page 5. Appellant disagrees. Rather, the cited portion of Bracho states:

The described embodiment is centered around the sending (publication) and receiving (subscribing) of events. Before a publisher can publish events, the publisher must define and advertise the events that it will publish. In order for the events to make sense, publishers and subscribers need to understand each other. For this reason, the described embodiment uses a standard specification language to define events.

Hence, Bracho in this portion describes defining events that may be received by subscribers, not generating assignments of data sites to the generated data subscriptions, the assignments being generated based on application data, using the first computer system, and automatically without human intervention, as recited by claim 1.

Furthermore, in response to arguments similar to those presented above, the Examiner merely responds that “Column 5 lines 5-10 disclose the publication of data in response applications.” See final Office Action of April 8, 2008 at page 9. Appellant submits that disclosure of “the publication of data in response applications” does not meet the limitations of claim 1 discussed above, which recite automatically generating, using a first computer system, data subscriptions for a publication to be distributed to data sites based only on a type of data to be distributed to data sites identified by the publication, accessed application data, and distribution criterion received as user input, and generating, based on application data and using the first computer system, assignments of data sites to the generated data subscriptions automatically without human intervention.

In addition, “Column 5 lines 5-1[1]” of Bracho¹ recites:

Networked computer system 100 uses a network communication protocol, such as TCP/IP, although any appropriate protocol can be used to implement the present invention.

¹ Appellant assumes the Examiner is referring to Bracho in the Examiner's response, although it is not clear.

In the described embodiment, a "publisher" publishes events of certain types on the network 120 and a "subscriber" subscribes to events of certain types.

Accordingly, this portion of Bracho refers to a network communication protocol used by the Bracho system and indicates that publishers publish events on a network and subscribers subscribe to the published events. Appellant submits that the network communication protocol used by the Bracho system is irrelevant to the features of claim 1. In addition, Appellant submits that the limited description of a publisher being able to publish events on a network and a subscriber being able to subscribe to published events does not describe or suggest automatically generating, using a first computer system, data subscriptions for a publication to be distributed to data sites based only on a type of data to be distributed to data sites identified by the publication, accessed application data, and distribution criterion received as user input, and generating, based on application data and using the first computer system, assignments of data sites to the generated data subscriptions automatically without human intervention, as recited in independent claim 1.

Cheng fails to remedy the deficiencies of Bracho discussed above. Nor does the Examiner contend Cheng does so.

In particular, Cheng describes techniques for accessing information stored in a database on a database management system. See Cheng at col. 1, lines 6-8. Cheng's techniques include a replication agent for providing replicated data from the database management system to a remote user. See Cheng at col. 1, lines 8-10. Cheng's replication agent receives a subscription message from the remote client. See Cheng at col. 3, lines 45-47. The subscription message identifies data that the remote client wants replicated from the database management system and specifies a replication period. See Cheng at col. 3, lines 48-53. The data replication agent accesses and reads a change log stored in the database management system and transmits changed data to the remote client. See Cheng at col. 3, lines 59-62 and 65-66.

As such, Cheng's techniques disclose receiving, from a remote client, a subscription message that identifies data to send to the remote client, and transmitting changed data to that remote client in response to the received request. Thus, Cheng does not remedy the failure of Bracho to describe or suggest the subject matter recited by claim 1.

Thus, for at least the reasons discussed above, each of Bracho, Cheng, and the proposed combination fail to describe or suggest generating, using a first computer system, data subscriptions for a publication to be distributed to data sites corresponding to computer systems that are distinct from the first computer system, where each data subscription is generated automatically by the first computer system based only on a type of data to be distributed to data sites identified by the publication, accessed application data, and distribution criterion received as user input, and generating, based on application data and using the first computer system, assignments of data sites to the generated data subscriptions automatically without human intervention, as recited in independent claim 1.

For at least these reasons, Appellant therefore submits that the combination of Bracho and Cheng does not support a *prima facie* case of obviousness. Therefore, Appellant requests reversal of the rejection of independent claim 1 and its dependent claims.

Independent claim 15 recites a method for generating data subscriptions in a manner corresponding to that of independent claim 1. Accordingly, for at least the reasons described above with respect to independent claim 1, Appellant requests reversal of the rejection of independent claim 15 and its dependent claims.

Independent claim 7 recites, among other things, a central system having a central database storing application data of various data types for an application program, storing data subscriptions to receive portions of the application data and configured to generate assignments of data subscriptions to distributed systems such that each assignment identifies a particular data subscription and a particular distributed system that is to receive a portion of the type of application data that corresponds to the distribution criteria for the type of application data included in the data subscription. The assignments of data subscriptions are automatically generated based on the application data and the distribution criteria.

As discussed above, Bracho relies on the subscribers to register a subscription for an event type and indicate the content and types of events that the subscriber wishes to receive. In contrast, amended claim 7 recites that assignments of data subscriptions are automatically generated based on application data and distribution criteria. Furthermore, and as discussed above, Cheng does not remedy the failure of Bracho to describe or suggest this feature. Because

each of Bracho, Cheng, and the proposed combination fails to describe or suggest at least this feature of claim 7, the rejection of claim 7 and its dependent claims should be reversed.

b. Provisional Double Patenting Rejection

Claims 1, 7, 15 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 10, and 19 of copending Application No. 10/784,848. Without conceding obviousness, Appellant respectfully requests that this provisional rejection be held in abeyance until the claims of both this application and those in Application No. 10/784,848 are otherwise held to be allowable.

c. Conclusion and Relief

Accordingly, for the foregoing reasons, the Appellant requests reversal of the pending 35 U.S.C. § 103 rejections of claims 1-3, 5-7, 10-13, 15-17, 19, and 20.

In accordance with Appellant's Notice of Appeal filed August 8, 2008, Appellant submits this Appeal Brief.

Pursuant to 37 CFR §1.136, Appellant hereby petitions that the period for response be extended for one month to and including November 8, 2008.

The fee in the amount of \$670.00 in payment of the brief fee (\$540) and the one-month extension of time fee (\$130) is being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: October 29, 2008

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Appendix of Claims

1. (Previously Presented) A computer-readable medium having embodied thereon a computer program configured to generate data subscriptions, the medium comprising one or more code segments configured to:

receive user input identifying a publication to be used to create data subscriptions, the publication being one of multiple predetermined publications identifying a type of data capable of being distributed to data sites;

receive user input identifying a distribution criterion by which data is to be distributed to data sites by subscriptions automatically generated without human intervention;

store, in computer-readable medium for later access, subscription-generation information including the identified publication and the identified distribution criterion;

access, using a first computer system, the subscription-generation information identifying the publication and the distribution criterion;

access, using the first computer system and the accessed subscription-generation information, application data of various data types, including the type of data identified by the subscription-generation information;

generate, using the first computer system, data subscriptions for the publication to be distributed to data sites corresponding to computer systems that are distinct from the first computer system, the computer systems and the first computer system being connected in a network of distributed computer systems operating an application program having the application data of the various data types, wherein each data subscription 1) is generated automatically by the first computer system based only on the type of data to be distributed to data sites, the accessed application data, and the distribution criterion and 2) identifies a portion of the application data to be distributed to one or more of the data sites of the second computer system;

generate assignments of data sites to the generated data subscriptions, the assignments being generated based on application data, using the first computer system, and automatically without human intervention;

store, in computer-readable medium for later access, the generated assignments; and

distribute a portion of the application data to the data sites corresponding to computer systems, the distribution being based on the data subscriptions generated by the first computer system and the generated assignments.

2. (Previously Presented) The medium of claim 1 wherein the one or more code segments are further configured to:

access information related to data sites wherein the data site information includes attributes and attribute values associated with a particular data site; and

associate a particular data site with a particular data subscription based on the data site information being related to the portion of application data to be distributed in the particular data subscription.

3. (Previously Presented) The medium of claim 1 wherein the type of data to be distributed to data sites comprises a business object type.

4. (Cancelled)

5. (Previously Presented) The medium of claim 1 wherein:
the distribution criterion comprises an attribute of the type of data to be distributed, and
the generation of data subscriptions comprises generating data subscriptions wherein each data subscription is generated based on the attribute of the type of data to be distributed to data sites.

6. (Previously Presented) The medium of claim 1 wherein:

the distribution criterion comprises a distribution criterion based on a relationship of a portion of the application data with an employee that uses a data site, and

the generation of data subscriptions comprises generating data subscriptions wherein each data subscription is generated based on the relationship of the portion of the application data with the employee that uses the data site.

7. (Previously Presented) A system for generating data subscriptions, the system comprising:

a central system having a central database storing application data of various data types for an application program, storing data subscriptions to receive portions of the application data and configured to assignments of data subscriptions to distributed systems such that each assignment identifies a particular data subscription and a particular distributed system that is to receive a portion of the type of application data that corresponds to the distribution criteria for the type of application data included in the data subscription; and

distributed systems having local databases of which at least some local databases include different portions of the application data from the central database,

wherein:

the data subscriptions for types of application program data are automatically generated by the central system based only on (1) the type of data to be distributed, the application data stored at the central system, and a distribution criteria for a type of application data, and (2) identifies a portion of the application data to be distributed to the local databases of the distributed systems,

the assignments of data subscriptions are automatically generated based on the application data and the distribution criterion, and

portions of the application data from the central database are distributed to the distributed systems based on the generated data subscriptions and assignments generated by the central system.

8-9. (Cancelled)

10. (Original) The system of claim 7 wherein the central system also stores assignments of employees to distributed systems such that each assignment identifies a particular employee and a particular distributed system that is to receive a portion of the type of application program data that corresponds to the particular employee based on the distribution criteria for the type of application program data included in the data subscription.

11. (Original) The system of claim 10 wherein assignments of employees are automatically generated based on (1) the application data and (2) the distribution criteria.

12. (Original) The system of claim 7 wherein the distribution criterion comprises an attribute of the type of data to be distributed.

13. (Original) The system of claim 7 wherein the distribution criterion comprises a distribution criterion based on a relationship of a portion of the application data with an employee that uses a data site.

14. (Cancelled)

15. (Previously Presented) A method for generating data subscriptions, the method comprising:

receiving user input identifying a publication to be used to create data subscriptions, the publication being one of multiple predetermined publications identifying a type of data capable of being distributed to data sites;

receiving user input identifying a distribution criterion by which data is to be distributed to data sites by subscriptions automatically generated without human intervention;

storing, in computer-readable medium for later access, subscription-generation information including the identified publication and the identified distribution criterion;

accessing, using a first computer system, the subscription-generation information identifying the publication and distribution criterion;

accessing, using the first computer system and the accessed subscription-generation information, application data of various data types, including the type of data identified by the subscription-generation information;

generating, using the first computer, data subscriptions for the publication to be distributed to data sites corresponding to computer systems that are distinct from the first computer system, the computer systems and the first computer system being connected in a network of distributed computer systems operating an application program having the

application data of the various data types, wherein each data subscription 1) is generated automatically by the first computer system based only on the type of data to be distributed to data sites, the application data accessed at the first computer system, and the distribution criterion and 2) identifies a portion of the application data to be distributed to the data sites of the second computer system;

generating assignments of data sites to the generated data subscriptions, the assignments being generated based on application data, using the first computer system, and automatically without human intervention;

store, in computer-readable medium for later access, the generated assignments; and

distributing a portion of the application data to the data sites corresponding to computer system, the distribution being based on the data subscriptions generated by the first computer system and the generated assignments.

16. (Original) The method of claim 15 further comprising:

accessing information related to data sites wherein the data site information includes attributes and attribute values associated with a particular data site; and

associating a particular data site with a particular data subscription based on the data site information being related to the portion of application data to be distributed in the particular data subscription.

17. (Original) The method of claim 15 wherein the type of data to be distributed to data sites comprises a business object type.

18. (Cancelled)

19. (Original) The method of claim 15 wherein:

the distribution criterion comprises an attribute of the type of data to be distributed, and the generation of data subscriptions comprises generating data subscriptions wherein each data subscription is generated based on the attribute of the type of data to be distributed to data sites.

20. (Original) The method of claim 15 wherein:

the distribution criterion comprises a distribution criterion based on a relationship of a portion of the application data with an employee that uses a data site, and

the generation of data subscriptions comprises generating data subscriptions wherein each data subscription is generated based on the relationship of the portion of the application data with the employee that uses the data site.

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Evidence Appendix

NONE.

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Related Proceedings Appendix

NONE.